

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. APPLN. NO. 09/833,666
ATTORNEY DOCKET NO. Q64029

REMARKS

Applicants thank the Patent Office for acknowledging Applicants' claim to foreign priority, and for indicating that the certified copy of the priority document, Italian Patent Application No. MI2000A000833 dated April 14, 2000, has been made of record in the file.

Applicants thank the Patent Office for initialing the references listed on the PTO-1449 form submitted with the Information Disclosure Statement filed on April 13, 2001, thereby confirming that the listed references have been considered.

Claims 1-8 have been examined on their merits.

Applicants herein amend claims 1-8 to remove grammatical errors, punctuation errors and awkward language. The amendments to claims 1-8 do not narrow the literal scope of the claims, were not made for reasons of patentability and do not implicate an estoppel in the application of the doctrine of equivalents.

Applicants herein add new claims 9-11. Support for new claims 9-11 can be found in the originally filed specification and claims. Entry and consideration of the new claims 9-11 is respectfully requested.

The Patent Office objects to claims 2, 3 and 5-8 as being dependent upon a rejected base claim. Applicants thank the Patent Office for indicating that claims 2, 3 and 5-8 would be allowed if rewritten in independent form. However, instead of rewriting claims 2, 3 and 5-8 in independent form, Applicants respectfully traverse the prior art rejections for the reasons set forth below.

Claims 1-11 are all the claims presently pending in the application.

1. Claims 7 and 8 are objected to as containing informalities. Applicants traverse the objection to claims 7 and 8 for at least the reasons discussed below.

Claims 7 and 8 were amended in the Preliminary Amendment filed on April 13, 2001 to remove their dependent on all the steps of claims 1-3, and amended to depend solely from claim 1. Applicants respectfully request that the objection to claims 7 and 8 be withdrawn.

2. Claims 1 and 4 stand rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by Meehan (U.S. Patent No. 6,115,419). Applicants traverse the rejection of claims 1 and 4 for at least the reasons discussed below.

To support a conclusion that a claimed invention lacks novelty under 35 U.S.C. § 102, a single source must teach all of the elements of a claim. *Hybritech Inc. v. Monoclonal Antibodies, Inc.*, 802 F.2d 1367, 1379, 231 U.S.P.Q. 81, 90 (Fed. Cir. 1986). A claim is anticipated only if each and every element as set forth in the claim is found either expressly or inherently in a single prior art reference. *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987). A single source must disclose all of the claimed elements arranged as in the claim. *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989). A proper anticipation rejection requires that every element of the claim be found “in a single prior art reference.” See *In re Robertston*, 169 F.3d 743, 745, 49 U.S.P.Q.2d 1949, 1950 (Fed. Cir. 1999). For anticipation to exist, there must be no difference between the claimed invention and the reference disclosure, as that reference would be understood by one of ordinary skill in the art. See *Scripps Clinic & Research Found. v.*

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Genentech, Inc., 927 F.2d 1565, 1576, 18 U.S.P.Q.2d 1001, 1010 (Fed. Cir 1991); *see also*, *Crown Operations Intn'l, Ltd. v. Solutia, Inc.*, 289 F.3d 1367, 62 U.S.P.Q.2d 1917 (Fed. Cir. 2002). Further, “an anticipating reference must describe the [claimed] subject matter with sufficient clarity and detail to establish that the subject matter existed and that its existence was recognized by persons of ordinary skill in the field of the invention.” *ATD Corp. v. Lydall, Inc.*, 159 F.3d 534, 545, 48 U.S.P.Q.2d 1321, 1328 (Fed. Cir. 1998) (citing *In re Spada*, 911 F.2d 705, 708, 15 U.S.P.Q.2d 1655, 1657 (Fed. Cir. 1990)). Rejections under 35 U.S.C. § 102 are proper only when the claimed subject matter is identically disclosed or described in the prior art. Thus, the cited reference must clearly and unequivocally disclose every element and limitation of the claimed invention.

Meehan fails to teach or suggest at least digitally delaying one of two digital signals by a period that is equal to an integer multiple of a sampling period of the two digital signals, as recited in claim 1. The Patent Office allege that one of the two digital signals is delayed by passing through “phase shifter (230) and a second feed-forward equalizer (232) with inherent multiple delay taps based on the sampling period.” *See* October 20, 2004 Office Action, page 3. The Patent Office further cites col. 4, lines 26-32 as support for its allegation. Col. 4, lines 26-32 of Meehan state:

First $\pi/2$ phase shift circuit 230 is connected to second feedforward equalizer circuit 232. First $\pi/2$ phase shift circuit 230 shifts by 90 degrees the digital baseband signal at the input of second feedforward equalizer 232 with respect to the baseband signal at the input of first feedforward equalizer 228.

There is no teaching or suggestion in the cited passage that one of two digital signals is delayed in a digital manner. There is no teaching or suggestion in Meehan that the allegedly introduced delay is based on the sampling period. Furthermore, if Figure 1 of Meehan allegedly shows that a first digital signal is delayed, then the second digital signal is delayed as well, since Figure 1 shows the identical circuitry (*i.e.*, $\pi/2$ phase shift circuit 252 is connected to second feedforward equalizer circuit 254) used for the second digital signal.

In addition, to the extent that the Patent Office is making an implicit inherency argument in rejecting claim 1, Applicants remind the Patent Office that the fact that a certain element *may* be present in the prior art is *not* sufficient to establish the inherency of that element. *In re Rijckaert*, 9 F.3d 1531, 1534, 28 U.S.P.Q.2d 1955, 1957 (Fed. Cir. 1993) *citing In re Oelrich*, 666 F.2d 578, 581, 212 U.S.P.Q. 323, 326 (CCPA 1981). “To establish inherency, the extrinsic evidence must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.” *In re Robertson*, 169 F.3d 743, 745, 49 U.S.P.Q.2d 1949, 1950-51 (Fed. Cir. 1999) (citations omitted). “In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic *necessarily* flows from the teachings of the applied prior art.” *Ex parte Levy*, 17 U.S.P.Q.2d 1461, 1464 (Bd. Pat. App. & Inter. 1990) (emphasis in original). There is no teaching or suggestion that the $\pi/2$ phase shift circuit (230)/feedforward equalizer circuit (232) digitally

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delays a signal, and the Patent Office has not provided any basis in fact or technical reasoning that supports its inherency argument. Thus, Applicants submit that claim 1 is allowable over Meehan, and respectfully request withdrawal of the § 102(e) rejection of claim 1.

With respect to claim 4, Applicants submit that claim 4 is allowable for at least reasons analogous to those discussed above with respect to claim 1. Therefore, under *Hybritech* and *Richardson*, Applicants submit that claim 4 is allowable, and respectfully request that the Patent Office withdraw the § 102(e) rejection of claim 4.

With respect to new independent claim 9, Applicants submit that claim 4 is allowable for at least reasons analogous to those discussed above with respect to claim 1. Therefore, Applicants submit that new claim 9 is allowable, and further submit that new claims 10 and 11 are allowable as well, at least by virtue of their dependency from claim 9.

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In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

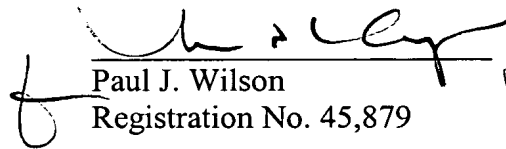
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